# **Complete Summary**

## **GUIDELINE TITLE**

Care of the patient with hyperopia.

BIBLIOGRAPHIC SOURCE(S)

American Optometric Association. Care of the patient with hyperopia. St. Louis (MO): American Optometric Association; 1997. 56 p. (Optometric clinical practice guideline; no. 16). [124 references]

# COMPLETE SUMMARY CONTENT

**SCOPE** 

METHODOLOGY - including Rating Scheme and Cost Analysis RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
QUALIFYING STATEMENTS
IMPLEMENTATION OF THE GUIDELINE

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IDENTIFYING INFORMATION AND AVAILABILITY

# **SCOPE**

DISEASE/CONDITION(S)

Hyperopia

**GUIDELINE CATEGORY** 

Diagnosis Evaluation Management

CLINICAL SPECIALTY

Optometry

**INTENDED USERS** 

Health Plans Optometrists

GUIDELINE OBJECTIVE(S)

- To accurately diagnose hyperopia
- To document the patient care treatment options for patients with hyperopia
- To identify patients at risk for the adverse effects of hyperopia
- To minimize the adverse effects of hyperopia
- To preserve the gains obtained through the treatment
- To inform and educate parents, patients, and other health care practitioners about the visual complications of hyperopia and the availability of treatment

# TARGET POPULATION

Patients of all ages with hyperopia

## INTERVENTIONS AND PRACTICES CONSIDERED

## Diagnosis

- 1. Patient history
- 2. Ocular examination
  - Visual acuity
  - Refraction
  - Ocular motility, binocular vision and accommodation
  - · Ocular health assessment and systemic health screening

## Treatment

- 1. Optical correction
- 2. Vision therapy
- 3. Medical (pharmaceutical)
- 4. Modification of the patient's habits and environment
- 5. Refractive surgery

# MAJOR OUTCOMES CONSIDERED

Not stated

## METHODOLOGY

# METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Searches of Electronic Databases

# DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The guideline developer performed literature searches using the National Library of Medicine's Medline database and the VisionNet database.

# NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Committee)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not applicable

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

**COST ANALYSIS** 

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The Reference Guide for Clinicians was reviewed by the American Optometric Association (AOA) Clinical Guidelines Coordinating Committee and approved by the AOA Board of Trustees.

## RECOMMENDATIONS

#### MAJOR RECOMMENDATIONS

Diagnosis of Hyperopia:

The evaluation of a patient with hyperopia may include, but is not limited to, thefollowing areas:

- A. Patient history
  - 1. Nature of presenting problem, including chief complaint
  - 2. Ocular and general health history
  - 3. Developmental and family history
  - 4. Use of medications and allergies
- B. Visual acuity
  - 1. Distance visual acuity testing
  - 2. Near visual acuity testing
- C. Refraction
  - 1. Retinoscopy
    - a. Static retinoscopy
    - b. Near-point retinoscopy
    - c. Cycloplegic retinoscopy
  - 2. Subjective refraction
  - 3. Autorefraction
- D. Ocular motility, binocular vision, and accommodation
  - 1. Versions
  - 2. Monocular and alternating cover test
  - 3. Near point of convergence
  - 4. Accommodative amplitude and facility
  - 5. Stereopsis testing
- E. Ocular health assessment and systemic health screening
  - 1. Assessment of pupillary responses
  - 2. Visual field screening
  - 3. Color vision testing
  - 4. Measurement of intraocular pressure
  - 5. Evaluation of anterior and posterior segments of eye and adnexa

# Management of Hyperopia:

The specific elements of treatment should be tailored to individual patient needs. Among the factors to consider when planning treatment and management strategies are the magnitude of the hyperopia, the presence of astigmatism or anisometropia, the patient's age, the status of accommodation and convergence, the demands placed on the visual system, and the patient's symptoms.

Among several available treatments for hyperopia-related symptoms, optical correction of the refractive error with spectacles and contact lenses is the most commonly used modality. It is the optometrist's responsibility to advise and counsel the patient regarding the options and to guide the patient's selection of the appropriate spectacles or contact lenses. Vision therapy and modification of the patient's habits and environment can be important in achieving definitive long-term remediation of symptoms. The use of pharmaceutical agents or refractive surgery may also be used in treating some patients.

The frequency and composition of evaluation and management visits of patients with hyperopia are summarized in the table, below.

Frequency and Composition of Evaluation and Management Visits of Hyperopia

Type of Patient	Number of Evaluation Visits	Treatment Options	Frequency of Follow- up Visits	Composition of Follow-Up Evaluations				Manageme Plan
				VA	REF	A/V	ОН	
Young child with mild to moderate hyperopia an and strabismus or amblyopia	1 to 2	<ul> <li>Optical correction</li> <li>Modify habits and environment</li> </ul>	3 to 12 mos		Each visit		p.r.n.	No treatmen or provide refractive correction; monitor visio
Young child with high hyperopia and no strabismus or amblyopia	1 to 2	<ul> <li>Optical correction</li> <li>Vision therapy</li> <li>Modify habits and environment</li> </ul>	2 to 6 mos		Each visit		p.r.n.	Provide refractive correction; treat any accommodal or binocular vision proble monitor visio
Young child with mild to high hyperopia and strabismus or amblyopia	2 to 3	<ul> <li>Optical correction</li> <li>Strabismus and amblyopia therapy</li> <li>Modify habits and environment</li> <li>Pharmaceuticals</li> </ul>	2 wk to 3 mos		Each visit		p.r.n.	Provide refractive correction; treat any amblyopia o strabismus; monitor visio
Older child with mild to moderate hyperopia	1 to 2	<ul> <li>Optical correction</li> <li>Vision therapy</li> <li>Modify habits and environment</li> </ul>	6 to 12 mos		Each visit		p.r.n.	No treatmen or provide refractive correction; monitor vision
Older child with high hyperopia	1 to 2	<ul> <li>Optical correction</li> <li>Vision therapy</li> <li>Modify habits and environment</li> </ul>	6 to 12 mos		Each visit		p.r.n.	Provide refractive correction; treat any accommodal or binocular vision proble

monitor vision

Pre- presbyopic adult	1	<ul> <li>Optical correction</li> <li>Vision therapy</li> <li>Modify habits and environment</li> </ul>	1 to 2 yr	Each visit	Each visit	No treatmen or provide refractive correction; treat any accommodar or binocular vision proble monitor visio
Presbyopic adult	1	<ul> <li>Optical correction</li> <li>Vision therapy</li> <li>Modify habits and environment</li> </ul>	1 to 2 yr	Each visit	Each visit	Provide refractive correction; treat any accommodal or binocular vision proble monitor vision

VA = visual acuity testing

REF = refraction

A/V = accommodative/vergence testing

OH = ocular health assessment

p.r.n. = as needed

# CLINICAL ALGORITHM(S)

An algorithm is provided for Optometric Management of the Patient with Hyperopia.

# EVIDENCE SUPPORTING THE RECOMMENDATIONS

## TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

# BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

## POTENTIAL BENEFITS

The early diagnosis and treatment of significant hyperopia and its consequences can prevent a significant amount of visual disability in the general population. Because hyperopia is usually not readily apparent, preventive examination of all young children is essential. Periodic eye and vision examinations are needed thereafter to help ensure the provision of treatment appropriate to the changing visual needs of the hyperopic patient.

#### POTENTIAL HARMS

Not stated

# QUALIFYING STATEMENTS

#### **OUALIFYING STATEMENTS**

Clinicians should not rely on this Clinical Guideline alone for patient care and management. Please refer to the references and other sources listed in the original guideline for a more detailed analysis and discussion of research and patient care information.

# IMPLEMENTATION OF THE GUIDELINE

## DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

# INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

**IOM CARE NEED** 

**Getting Better** 

IOM DOMAIN

Effectiveness
Patient-centeredness

# IDENTIFYING INFORMATION AND AVAILABILITY

## BIBLIOGRAPHIC SOURCE(S)

American Optometric Association. Care of the patient with hyperopia. St. Louis (MO): American Optometric Association; 1997. 56 p. (Optometric clinical practice guideline; no. 16). [124 references]

#### **ADAPTATION**

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1997 (reviewed 2001)

GUIDELINE DEVELOPER(S)

American Optometric Association - Professional Association

# SOURCE(S) OF FUNDING

Funding was provided by the Vision Service Plan (Rancho Cordova, California) and its subsidiary Altair Eyewear (Rancho Cordova, California)

#### **GUI DELI NE COMMITTEE**

American Optometric Association Consensus Panel on Care of the Patient with Hyperopia

## COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Members: Bruce D. Moore, O.D. (Principal Author); Arol R. Augsburger, O.D., M.S.; Elise B. Ciner, O.D.; David A. Cockrell, O.D.; Karen D. Fern, O.D.

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#### FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

# **GUIDELINE STATUS**

This is the current release of the guideline.

According to the guideline developer, this guideline has been reviewed on a biannual basis and is considered to be current. This review process involves updated literature searches of electronic databases and expert panel review of new evidence that has emerged since the original publication date.

An update is not in progress at this time.

#### GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the <u>American Optometric Association Web site.</u>

Print copies: Available from the American Optometric Association, 243 N. Lindbergh Blvd., St. Louis, MO 63141-7881.

## AVAILABILITY OF COMPANION DOCUMENTS

None available

#### PATIENT RESOURCES

The following is available:

• Answers to your questions about farsightedness. St. Louis, MO: American Optometric Association. (Patient information pamphet).

Print copies: Available from the American Optometric Association, 243 N. Lindbergh Blvd., St. Louis, MO 63141-7881; Web site, <a href="https://www.aoanet.org">www.aoanet.org</a>.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

#### NGC STATUS

This summary was completed by ECRI on December 1, 1999. The information was verified by the guideline developer on January 31, 2000.

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